

**Listing of the Claims:**

Please cancel claims 21 and 25 without prejudice to refiling.

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Claim 1 (currently amended): A method for use in analyzing associations in the sequence order of transactions, the method comprising  
loading data from the transactions into a database system, where the data includes an entry  
for each transaction and the transactions are grouped into sessions groups;  
ordering the transactions in sequence within each sessiongroup; and  
performing an analysis of the sessions groups of transactions to find associations in the  
sequence order of the transactions in the sessionsgroups.

Claim 2 (original): The method of claim 1 wherein the data for each transaction includes  
a time stamp related to a time that the transaction occurred and wherein ordering the transactions  
comprises  
numbering the transactions based on the time stamps included in the data for the transactions.

Claim 3 (currently amended): The method of claim 2 wherein numbering the  
transactions comprises  
numbering the transactions in sequence order from the transaction having the earliest time  
stamp to the transaction having the latest time stamp.

Claim 4 (currently amended): The method of claim 1 wherein loading the data from the  
transactions into the database system comprises  
parsing the data for each transaction into fields in the database system; and  
identifying one of the fields as a session group identifier field where a session group  
identifier for each transaction is stored.

B | Claim 5 (original): The method of claim 4 wherein loading the data from the transactions into the database system further comprises

identifying one of the fields as an item identifier field where an item identifier for each transaction is stored.

Claim 6 (original): The method of claim 1 wherein performing the analysis comprises performing an affinity analysis.

Claim 7 (currently amended): The method of claim 1 wherein loading data from the transactions into the database system comprises

parsing the transaction data into fields in a base table in the database system;

identifying one of the fields as a session\_group identifier field where a session\_group identifier for each transaction is stored;

identifying one of the fields as an item identifier field where an item identifier for each transaction is stored;

ordering the transactions in each session\_group—of transactions in sequence comprises concatenating a sequence-an-order number to the item identifier for each transaction;

performing the analysis comprises

building one or more support tables for one or more item identifiers with concatenated order number; and

calculating support, confidence and lift by joining the support tables.

Claim 8 (currently amended): The method of claim 7 wherein building the one or more support tables comprises

counting the transactions containing various combinations of item identifiers with concatenated sequence\_order—number and dividing the count by a total number of sessions-groups to obtain a support for each of the combinations.

B | Claim 9 (currently amended): The method of claim 7 wherein building the one or more support tables comprises

for each item identifier with concatenated sequence order-number, counting the transactions containing the same item identifier with concatenated sequence order-number and computing the support by dividing the count by a total number of sessions groups and storing the item identifier with concatenated sequence order-number and the support in a first support table.

Claim 10 (currently amended): The method of claim 9 wherein building the one or more support tables further comprises

building a second base table by selecting transactions from the first base table that include an item identifier corresponding to an item identifier and concatenated sequence order number having a support more than a predetermined value.

Claim 11 (currently amended): The method of claim 10 wherein building the one or more support tables further comprises

counting the transactions in the second base table containing various combinations of item identifiers with concatenated sequence order-number and dividing the count by a total number of sessions groups in the second base table to obtain a support for each of the combinations.

Claim 12 (currently amended): The method of claim 10 wherein building the one or more support tables further comprises

counting the transactions in the second base table containing combinations of two specified item identifiers with concatenated sequence order-number and dividing the count by a total number of transactions in the second base table to obtain a support for each of the combinations; and

storing the item identifiers and computed support in a two item support table.

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Claim 13 (currently amended): The method of claim 10 wherein building the one or more support tables further comprises

counting the transactions in the second base table containing combinations of N specified item identifiers with concatenated sequence order-number and dividing the count by a total number of transactions in the second base table to obtain a support for each of the combinations; and

storing the item identifiers and computed support in an N item support table.

Claim 14 (currently amended): A method for use in analyzing associations in the order of transactions, the method comprising

loading data from the transactions into a database system, where the data includes an entry for each transaction and wherein loading the data comprises grouping the transactions into groups;

selecting sessions of transactions belonging to the same group and corresponding to a single session;

ordering the transactions in sequence within each session; and

performing an analysis of the sessions of transactions to find associations in the sequence order of the transactions in the sessions.

Claim 15 (original): The method of claim 14 wherein each entry includes a time stamp related to a time that the transaction occurred and selecting comprises

selecting entries with time stamps lying in a predetermined range.

Claim 16 (original): The method of claim 15 wherein ordering comprises numbering the selected entries based on their respective time stamps.

Claim 17 (original): The method of claim 16 wherein numbering comprises numbering the selected entries from the earliest to the latest.

B (Claim 18 (original): The method of claim 16 wherein numbering comprises numbering the selected entries from the latest to the earliest.

Claim 19 (original): The method of claim 16 wherein numbering comprises numbering the selected entries based on their respective distance in time from a reference time.

Claim 20 (currently amended): A computer program, stored on a tangible storage medium, for use in analyzing associations in the sequence order of electronically stored transactions, the program comprising executable instructions that cause a computer to load data from the transactions into a database system, where the data includes an entry for each transaction and the transactions are grouped into sessionsgroups; order the transactions in sequence within each sessiongroup; and perform an analysis of the sessions groups of transactions to find associations in the sequence order of the transactions in the sessionsgroups.

Claim 21 (cancelled): The computer program of claim 20 where the program further comprises executable instructions that cause a computer to select sessions of transactions belonging to the same group and corresponding to a single session.

Claim 22 (currently amended): The computer program of claim 2021 where each entry includes a time stamp related to a time that the transaction occurred and where, in selecting sessions, the computer selects entries with time stamps lying in a predetermined range.

Claim 23 (currently amended): The computer program of claim 20 where, in loading data from the transactions, the computer parses the transaction data into fields in a base table in the database system;

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identifies one of the fields as a session group-identifier field where a session group identifier for each transaction is stored;  
identifies one of the fields as an item identifier field where an item identifier for each transaction is stored;  
in ordering the transactions in each session group of transactions, the computer concatenates a sequence an order-number to the item identifier for each transaction; and  
in performing the analysis, the computer  
builds one or more support tables for one or more item identifiers with concatenated  
sequence order-number; and  
calculates support, confidence and lift by joining the support tables.

Claim 24 (currently amended): A database system for use in analyzing associations in the order of transactions, the database system comprising  
a massively parallel processing system comprising  
one or more nodes;  
a plurality of CPUs, each of the one or more nodes providing access to one or more CPUs;  
a plurality of virtual processes each of the one or more CPUs providing access to one or more virtual processes;  
each virtual process configured to manage data stored in one of a plurality of data-storage facilities;  
a parsing engine configured to parse transaction data and store the parsed transaction data in a table that is distributed across two or more data-storage facilities, where the data includes an entry for each transaction and the transactions are grouped into sessionsgroups;  
a database-management component configured to operate on the table to order the transactions in sequence within each session group; and  
perform an analysis of the sessions groups of transactions to find associations in the sequence order of the transactions in the sessions groups.

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Claim 25 (cancelled): The database system of claim 24 where the database-management component is configured to

select sessions of transactions belonging to the same group and corresponding to a single session.

Claim 26 (currently amended): The database system of claim 24-25 where each entry includes a time stamp related to a time that the transaction occurred and where, in selecting sessions, the database management system is configured to

select entries with time stamps lying in a predetermined range.

Claim 27 (currently amended): The database system of claim 24 where, in loading data from the transactions, the database management system is configured to

parse the transaction data into fields in a base table in the database system;

identify one of the fields as a session-group identifier field where a session-group identifier for each transaction is stored;

identify one of the fields as an item identifier field where an item identifier for each transaction is stored;

order the transactions in each session-group of transactions in sequence comprises concatenating a sequence an order number to the item identifier for each transaction; and

in performing the analysis, the database management system is configured to

build one or more support tables for one or more item identifiers with concatenated sequence order-number; and

calculate support, confidence and lift by joining the support tables.